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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

TRAN, HAI V

ART UNIT PAPER NUMBER

2611

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13

Please find below and/or attached an Office communication concerning this application or proceeding.

AC

Office Action Summary

Application No.

09/057,786

Applicant(s)

BORSETH, JAY ALAN

Examiner

Hai Tran

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/11/2002 has been entered.

Response to Arguments

Applicant's arguments filed 01/22/2002 have been fully considered but they are not persuasive.

Claims 1 and 5, Applicant argued, Kohashi still does not show "channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country" as required in claims 1 and 5.

In response, the Examiner respectfully disagrees with Applicant because as discussed from the previous Office Action, the Examiner did explain that "Kohashi's automatic channel presetting mode is based on the corresponding relationship (relational database) in retrieval preferential order between the countries and the plurality of kinds of broadcasting station identification information stored in the first memory, thus in the presetting mode, a relational database matches information field in

one table (Fig. 2a) with information in corresponding field of another table (Fig. 2b) to produce a third table (Fig. 2e) that combines data from both tables see (Fig. 2a-e and Fig. 11a-d.” With the channel selection apparatus and the automatic channel presetting method from Kohashi, the retrieval preference order of broadcasting station is based on at least one of country information and language information inputted so to reduce the search time (Col.5, lines 5-23). By reducing the search time, Kohashi’s tables must be indexed so to perform the function of “indexed search” as defined by Microsoft Press Computer Dictionary 3rd Edition as “A search for an item of data that uses an index to reduce the amount of time required.” Thus, Kohashi discloses the function “to reduce the search time” clearly meets and encompasses the limitation claimed “channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country”. For this reason, the Examiner maintains the rejection.

Claims 2 and 6, Applicant argued regarding the limitation “the country table lists the countries according to a uniquely assigned country code” and further gave an example, “Such interpretation would lead to a table showing “country/code”, e.g. “France/France.”

In response, the Examiner respectfully disagrees with Applicant interpretation because nowhere in the previous Office Action the Examiner indicates such example as Applicant suggested.

Claim 3, Applicant argued ITU standard provides no teaching or suggestion of the “Channel-to-frequency mapping tables being indexed by the country table so that

selection of a country in the country table references an associated channel-frequency mapping table for the selected country.”

In response, the Examiner stated in the previous Office Action regarding ITU standard that “ITU standard is well known to those skill in the art, the use of ITU’s country code in place Kohashi’s country code is obvious so to conform to ITU standard.” Regarding the limitation “Channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-frequency mapping table for the selected country.” The Examiner refers the Applicant to the above response of claims 1 and 5.

Claim 9, Applicant argued, “The Office provides no evidence as to how the skilled artisan would reinvent Kohashi’s system into a structure that utilized DLLs. Further the Office does not even indicate if the system of Kohashi is capable of accepting such modification, nor where the suggestion lies in the reference to attempt such modification.”

In response, it is not necessary that the Kohashi’s reference actually suggest, expressly or in so many words, the change or improvements that Applicant has made. The test for obviousness is what the Kohashi’s reference, as a whole would have suggested to one of ordinary skill in the art to modify Kohashi’s system Fig. 1 (a processing system with microprocessor and memories) under Microsoft Windows environment to develop software for a specific television tuning component as DLL.

Claim 12, Applicant argued regarding the limitation "upon transporting the tuner back to a particular locale, the tuner retrieves the stored tuning frequencies to restore operation in the particular locale" could not be considered inherent from Kohashi.

In response, the Examiner respectfully disagrees with Applicant since Kohashi's system performs "an automatic channel presetting mode" and stored all the available tuning frequencies in memory and the action of retrieving the stored tuning frequencies to restore operation in the particular local upon transporting the tuner back to the particular locale is inherent because, once the user transports the tuner back to the particular local, the user just re-enters (inputs back) the particular locale location so the system could retrieve the stored tuning frequencies as discloses by Kohashi (Col.5, lines 15-22).

Claim 16, Applicant argued, "the office argues that DLLs are well known and that skilled artisans would construct the tuner modules as DLLs. Applicant contends that this argument is rooted only in hindsight reconstruction, which is impermissible."

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant further argued, "Claim 16 does not even recite use of DLLs."

In response, although, claim 16 does not recite use of DLLs, but claim 16's limitation recites "A television tuning system as recited in claim 13, further comprising a second tuner module different from the tuner module, the second tuner module being used to replace the tuner module during upgrade without replacing the tuning circuitry and the decoding circuitry."

Based on the limitation "without replacing the tuning circuitry and the decoding circuitry," upgrading the tuner module by using hardware (a second tuner) is not feasible and it would have been obvious to one of ordinary skill in the art to use firmware/software instead of hardware to upgrade the tuner module so to maintain the structure of the tuning circuitry and the decoding circuitry as claimed.

Claim 17, Applicant argued, "Applicant is not claiming APIs in general, but is claiming a specific API that exposes functionality of the tuner module to an application program."

In response, the Examiner refers Applicant back to the previous Office action regarding this matter. The Examiner responds again to Applicant that API is a set of routines used by an application program. Since Kohashi's system comprises a CPU to process all the functions claimed with respect to the counties code and information stored in memories as a relational Database, Kohashi's system must have OS (operating system) and software application so to perform these sets of routines or functions on its system as disclosed. Since API is well known in the computer art under

Microsoft Windows environment, an ordinary skill in the art would have been obvious to modify Kohashi's system to perform under Microsoft Windows environment with ease.

Claim 27, see claim 17.

Claim 36, Applicant argued the Office action does not discuss "scanning for a better quality frequency within the channel."

In response, Applicant admitted that "the cited reference relates to ensuring that the signal sent from the tuner circuit in fact matches the intended value" that indeed meets the claimed limitation of "scanning for a better quality frequency within the channel" and the Examiner further cites Col. 14, lines 17-55 to support the process of "scanning" such as "if the channel has not been selected successfully, then the next channel (in the case of Fig. 2a, channel 3) is set (step S28). Thereafter, the processing is repeated beginning with step S47."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 4, 5, 6, 8, 10, 12, 32, 33, 35 - 38, 40-41 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohashi (EP 0 723367 A2).

Regarding claims 1 and 5, Kohashi discloses a television tuner comprising:

A country table listing a plurality of countries (Fig.8).

Multiple channel-to-frequency mapping tables (Fig.2a) correlating channel numbers to corresponding frequencies for associated countries in the country table (fig.11C), the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country (Fig. 2C and 12; Col.8, lines 20-55+). The Kohashi's automatic channel presetting mode is based on the corresponding relationship (relational database) in retrieval preferential order between the countries and the plurality of kinds of broadcasting station identification information stored in the first memory, thus in the presetting mode, a relational database matches information from a field in one table (fig.2a) with information in a corresponding field of another table (Fig.2b) to produce a third table (fig.2e) that combine data from both tables see Fig.2a-e and Fig.11a-d. Therefore, Kohashi's tables must be indexed in order to perform such relational database described in the process of "automatic channel presetting. Thus Kohashi clearly meets the limitation claimed "the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country".

A tuning device (Fig.1, element 2) to tune to a particular frequency within the channel-to-frequency mapping table associated with the selected country upon selection of corresponding channel (Col.4, lines 5-20).

Regarding claims 2 and 6 Kohashi further discloses wherein the country table lists the countries according to a uniquely assigned country code (Fig.2C).

Regarding claims 4 and 8; Kohashi further discloses wherein the channel-to-frequency mapping tables also contain a television standard for the associated countries (Fig.2A, 2C, Col.10, lines 26-40).

Regarding claim 10, Kohashi further discloses a television-tuning component (Fig.1, element 2).

Regarding claim 12, Kohashi further discloses a tuner comprising:

Tuner circuitry (Fig.1, elements 2, 5 and 6; Fig.17, element 2) to tune to a various television frequencies carrying television video signals;

A tuner module coupled to adjust the tuner circuitry to scan multiple channels within a particular locale for corresponding tuning frequencies (Col.9, lines 44-Col.10, line 43; and Col.14, lines 17-25), the tuner module storing the tuning frequencies for the particular locale (Col.5, lines 15-22 and Col.8, lines 20-55+);

Upon transporting the tuner to a new locale, the tuner module scans multiple channels within the new local for corresponding tuning frequencies (Col.10, lines 25-42);

Upon transporting the tuner back to a particular locale, the tuner retrieves the stored tuning frequencies to restore operation in the particular locale (Col.5, lines 2-26).

Regarding method claim 32, see analysis of apparatus claims 1 and 5.

Regarding method claim 33, see analysis of apparatus claim 2.

Regarding method claim 35, see analysis of apparatus claim 4.

Regarding method claim 36, Kohashi further discloses the step of scanning for a better quality frequency within the channel (Col.15, lines 53 – Col.16, lines 36).

Regarding method claim 37, see analysis of apparatus claims 1 and 5.

Regarding method claim 38, see apparatus claim 4.

Regarding method claim 40, see analysis of claim 12.

Regarding claim 41 see analysis of claim 36.

Regarding claim 43, see analysis of claims 1, 5 and (Fig. 1, elements 2, 3, 6, 7, 8, 9, 10, 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 7, 27 - 30 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kohashi (EP 0 723367 A2).

Regarding claims 3 and 7, Kohashi discloses a country table list country (Fig. 2C and 12; Col.8, lines 20-55+), but fails to specifically disclose country table lists according to ITU code.

Official Notice is taken that the ITU standard provides a table to identify each country used in the transmission/communication to identify each country, as is well known to those skilled in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the ITU standard designation codes considered a design choice to conform to a developed and utilized standard such as the ITU, providing the designations for each country so that upon decoding of the codes associated with the channels associated with the countries, merely or based on the knowledge of conforming to the ITU designations/standard.

Regarding claim 27, in combination with claims 3 and 7, Kohashi further discloses methods for performing the following functions (see Col.5, lines 2-14, Col.9, line 1 - Col.11, lines 10 and Fig.1-8):

Retrieving all analog video TV standards supported by the tuning system (Col.8, lines 40-43, "table in memory 9 in which corresponding countries and preferential orders of formats, to be searched"; therefore, extracted and compared with embedded channel data).

Retrieving a current analog video TV standard in use (Col.7, lines 51-55, which is based on the compared embedded data of the channel).

Setting a current TV channel (Col.9, lines 33-43).

Retrieving the current TV channel (Col.9, lines 45-50).

Retrieving highest and lowest channels available (Fig.3, element S8; Col.11, lines 17-26 and Fig.9).

Scanning for a precise signal on the current TV channel's frequency (Fig.4, 5, 6 and 12 and Col.13, line 45 – Col.15, line 53).

Setting a country code, retrieving the country code (Col.13, lines 50-54).

Setting a storage index for regional channel to frequency mappings (Fig.2a, b, c, d, e, 11c-d, 14) (Fig.17, element 13 and 17; Fig.20a-b).

Retrieving the storage index (Fig.16, element S94).

Retrieving a number of TV sources plugged into the tuning system (sources are met in view of different channels on different frequencies, associated with different broadcasting stations, which may be from different countries, as disclosed).

Setting and retrieving a type of tuning system (detection and setting by retrieving of a video decoding format standard, associated with different countries, such as PAL, NTSC, Secam etc. in order to decode the received TV signal, see col. 8, lines 40-52).

Retrieving a current video frequency (met by the tuner); and

Retrieving a current audio frequency (met in view of de-multiplexing the audio component, in the received TV signal having video and audio to an output means "speaker").

Regarding claims 28 and 29, see analysis of claim 7 in combination of claim 8.

Regarding claim 30, Kohashi further discloses the step of storing the selected set of TV channel-to-TV frequency mapping (Fig.4, element S13; Col.8, lines 32-56).

Regarding method claim 34, see analysis of apparatus claim 3.

3. Claims 9, 13, 15, 16, 18, 19, 20, 22, 23, 24, 39, 42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohashi (EP 0 723367 A2) in view of Yazolino et al. (US 5355162).

Regarding claims 9, 15, 16 and 24 Kohashi does not specifically disclose embodied in software stored on a computer-readable storage medium.

Yazolino discloses embodied in software stored on a computer-readable storage medium (Fig.3, elements 212 and 150; Col.12, table 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kohashi system by implementing "control software" as taught by Yazolino in order to take the advantage of the processing power of the CPU to generate more than one control signal to specify the signal format of the currently selected channel (see Yazolino, Col.19, lines 30-40).

Neither Kohashi nor Yazolino specifically disclose embodied in software as a dynamic linked library (DLL).

Official Notice is taken that software written, as DLL file is well known in the computer art under Microsoft Windows environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kohashi by developing software for a specific television tuning system, as DLL file, so that the DLL file does not consume memory until it is used, and because DLL is a separate file, a programmer can make corrections or improvements to only that module without affecting the operation of the calling program or any other DLL files.

Regarding claim 13, in combination with claims 5, 6, 8, 9, 10 and 12; Kohashi further discloses a television tuning system comprising:

A tuner circuitry to tune to various television frequencies carrying television video signals (Fig.1, element 2).

A video decoder circuitry coupled to receive a television video signal from the tuner circuitry and to convert the television video signal to digital video data (Fig.1, elements 3, 5,15).

A tuner module coupled to adjust the tuner circuitry to a particular television frequency (Fig.1, elements 2, 3, 6, 7, 8, 9, 10, 12).

A video decoder module to decode the digital video data according to a particular video standard (Fig.1, elements 15 and 16).

Regarding claim 18, see analysis of claims 2 and 4.

Regarding claim 19, see analysis of claim 13.

Regarding claim 20, see analysis of claim 2.

Regarding claim 22, see analysis of claim 4.

Regarding claim 23, Kohashi further discloses a code segment to store of broadcast frequencies that map to corresponding channels within the particular country for subsequent retrieval (Fig.2C and 11C).

Regarding claims 39 and 42, see analysis of claim 9.

Regarding claim 44, see analysis of claim 9 in combination with claims 32, 35, 37 and 38.

4. Claim 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Kohashi (EP 0 723367 A2) in view of Yazolino et al. (US 5355162).

Regarding method claim 31, see analysis of claim 9.

5. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohashi (EP 0 723367 A2) in view of Yazolino et al. (US 5355162).

Regarding claims 14 and 21, Kohashi discloses a country table list country (Fig. 2C and 12; Col.8, lines 20-55+).

Neither Kohashi nor Yazolino fails to specifically disclose country table lists according to ITU code.

Official Notice is taken that the ITU standard provides a table to identify each country used in the transmission/communication to identify each country, as is well known to those skilled in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the ITU standard designation codes considered a design choice to conform to a developed and utilized standard such as the ITU, providing the designations for each country so that upon decoding of the codes associated with the channels associated with the countries, merely or based on the knowledge of conforming to the ITU designations/standard.

6. Claims 17, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kohashi (EP 0 723367 A2) in view of Yazolino et al. (US 5355162).

Regarding claims 17 and 25, Neither Kohashi nor Yazolino specifically discloses that the software supports API.

Official Notice is taken that API is well known in the computer art under Microsoft Windows environment. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kohashi in combination with Yazolino by using API so that the Kohashi and Yazolino's application software could use those set of routine (API) to direct the performance of procedures by the computer OS.

Regarding claim 26, in combination with claim 17, Kohashi further discloses methods for performing the following functions (see Col.5, lines 2-14, Col.9, line 1 - Col.11, lines 10 and Fig.1-8):

Setting a current TV channel (Col.9, lines 33-43).

Retrieving the current TV channel (Col.9, lines 45-50).

Setting the country code (Col.13, lines 50-54).

Setting a storage index for regional channel to frequency mappings (Fig.2a, b, c, d, e, 11c-d, 14) (Fig.17, element 13 and 17; Fig.20a-b); and

Retrieving the storage index (Fig.16, element S94).

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Borseth (US 6340977) shows a worldwide television tuning system with object-based tuning control module.

Lee (US 6005937) shows a universal decoder.

Tomita et al. (US 5649048) Shows a video taperecorder with television standards converter.

Nishigaki et al. (US 5907365) shows a television device.

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Contact Fax Information

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or Faxed to: (703) 872-9314

for formal communication intended for entry or
for informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (703) 308-7372. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

HT:ht
02/24/2002



ANDREW FAILE
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